

MOTOR TRANSPORT SERVICES PLANNING



Senior Transportation Officer Qualification Course Introduction to Motor Transport

Motivator

In this lesson, you will learn about Motor Transport and how it is a critical element to various military operations and levels of war.

Your understanding of the importance of Motor Transportation Services to various forces will empower you to provide responsive leadership.

MOTIVATOR



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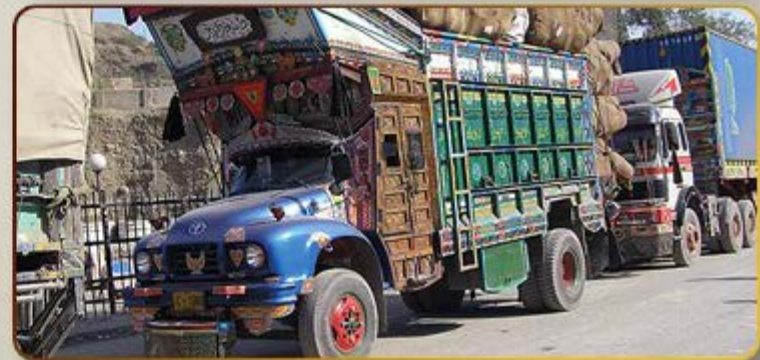
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Lead-in

Motor transportation plays a significant role in Army operations.

This makes it imperative that you have a thorough knowledge of all aspects of motor transportation operations in order to successfully interface with supported units from other services during all levels of war.

LEAD-IN



The Army plays a larger role in Motor Transport than any of the other services.

This makes it imperative that you know how Motor Transport meets the needs of customers across all services and in all levels of war.

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Levels of War

Transportation needs vary depending on the level of war.

The goals and organizations involved at each of these levels of war also differ largely because of the point of origin and point of use relative to the personnel/cargo to include:

- Strategic
- Operational
- Tactical



Motor Transport at each level of war varies because of the size, nature, and purpose of the transportation.



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Strategic Motor Transport

At the strategic level, U.S. Transportation Command (USTRANSCOM) provides the Department of Defense (DoD) with common user air, land and sea transportation, and port management.

Strategic transportation primarily concerns onward movement support for missions originating from USTRANCOM.

At this level of war, Motor Transport can be critical in increasing port throughput.



Major moves at the strategic level, normally encompass all the services.

To this end, the U.S. Transportation Command components work together to ensure agile, responsive and adequate transportation for strategic moves.



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Strategic Partners

Senior Transportation Officers working in USTRANSCOM must work effectively with a variety of organizations, including its three component commands:

- Air Mobility Command (AMC)-Air Force
- Military Surface Deployment and Distribution Command (SDDC)-Army
- Military Sealift Command (MSC)-Navy



USTRANSCOM must effectively transport resources by land, air, or sea to any destination.

As a Senior Transportation Officer at this level, you may be involved in communications as USTRANSCOM coordinates assets and capabilities of the Army, Navy, and Air Force to meet Department of Defense strategies and objectives.

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Strategic Distribution

The purpose of strategic distribution is to achieve timely and reliable delivery of required materiel to the theater.

The strategic distribution network encompasses the first strategic mile at the source of supply all the way to the theater.

The strategic distribution network:

- Is a multidirectional and flexible combination of nodes and links lines of communication (LOCs) between the nodes.
- Seams between the strategic and theater levels must be transparent to the warfighter.



The purpose of strategic distribution is to reliably deliver the required materiel to the theater on time - every time.

This should be done in a manner that is transparent to the warfighter.

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Platform Management

Army Intermodal Deployment Platform Management Office (AIDPMO) is the Army's single manager for International Organization for Standardization (ISO) containers, flatracks, and other distribution platforms.

Operating at the strategic level, the AIDPMO:

- Develops concepts, practices, and procedures for the management and control of the Army's Distribution Platform Assets
- Ensures the Army operates effectively and efficiently within DoD and commercial intermodal systems
- Maintains control and readiness of Army-owned/leased intermodal assets
- Provides container management support to Army units and activities worldwide
- Provides Army representation to intermodal organizations outside the Army



The goal of the Army Intermodal Deployment Platform Management Office is to ensure that the Army operates effectively and efficiently within DoD and commercial intermodal systems.

This would include the practices, procedures, and readiness in the use of these assets.

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Seamless Distribution

Seamless distribution activities require:

- Communications
- Total visibility of the strategic flow
- Effective distribution management
- Modernized distribution processes and technologies



The strategic distribution mission is complex and worldwide. Responsive agile movements require technologies and tools.

Mission fulfillment demands that the distribution network and physical distribution capabilities be used to synchronize and coordinate transportation activities for maximum efficiency.

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Operational Motor Transportation

Operational level transportation works to attain strategic goals within a theater of war.

Motor transportation in the operational level of war focuses two primary missions in which the following activities take place.

Clear the ports by moving cargo to:

- Assembly area
- Marshalling yard
- Hub
- Node terminal

Build force structure by:

- Moving units and material forward
- Establishing lines of communication (LOCs)
- Providing command and control (C2) for movements

Motor transport unit missions vary based upon their location in a theater of operations.

At the operational level, motor transport units have two primary missions: clear the ports and support the buildup of force structure.



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Tactical Motor Transport

At the tactical level, transportation units support multifunctional logistics organizations by:

- Moving supplies, personnel, and units
- Hauling retrograde equipment on the return trip
- Supporting units and other services located in or passing through their area of responsibility

At both the tactical and operational levels, motor transport units are usually employed as general support along a route or within an area.

At the tactical level, motor transportation is utilized by logistics organizations to move equipment and supplies in the most efficient manner possible.



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Key Points

The following key points regarding the differences and similarities of Motor Transport at these levels of war were discussed:

- Strategic
- Operational
- Tactical

The following key points regarding the differences and similarities of Motor Transport at these levels of war were discussed: strategic, operational, and tactical.

KEY POINTS



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Quick Challenge

QUICK CHALLENGE



Select the Motor Transport activity that would be performed to build force structure.

Select the best answer and then select Submit.

- A. Move cargo to assembly area
- B. Move cargo to marshalling yard
- C. Move cargo to hub
- D. Move units and material forward



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Supporting Joint Operations

Army transportation units are the single largest provider of land surface movement capability in the Modular and Joint Forces.

These Motor Transport capabilities support transportation needs for Army units and in joint operations:

- Port or terminal clearance
- Local and line haul operations
- Interzonal and Intrazonal transport service
- Trailer Transfer Point (TTP) operations
- Drive-away operations
- Reception and onward movement through transfer operations
- Container transport operations



All the services and Joint forces depend on the Army for surface transportation.

It is vital that you, as an Army Senior Transportation Officer, know the capabilities you can offer.

You should also know the levels at which those capabilities are most relevant.

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Motor Transport Sources

To meet joint needs, Motor Transport uses various truck transportation organizations including organic, Host Nation, and contracted assets.

Providing Motor Transport support requires interfacing with:

- Host Nation transportation capabilities and contracted assets, such as Logistics Civil Augmentation Program (LOGCAP)
- Non-governmental organizations (NGOs)

The Army uses organic and contracted resources to accomplish Motor Transport missions.

As such, you could be working with contractors and Host Nations to obtain the assets you need to meet transportation objectives.



communicate with each other to obtain and transport needed supplies was also a challenge:

"The leadership challenge during the deployment was getting the logistics organizations to talk and work together so that they could be mutually supporting.

"I used a variety of techniques to gain that trust and friendship, and they had varying results and levels of success.

"Each key leader had a different leadership style that affected how he conducted business.

"The true art was to switch styles multiple times during a visit in order to interact and aggressively partner while not simply giving the Iraqis supplies.

"Over the past few years, Army units have simply given Iraqis stuff, and they have conditioned the Iraqis to ask and then try to shame us for not supporting them.

"This easier path was not helpful in assisting the IA units to become independent."

Journal Narration:

Lieutenant Colonel Christopher Whittaker recounts the challenges and the key to his success in working with host nation transporters in Iraq.

Lieutenant Colonel Christopher J. Whittaker
Commander of the 15th Brigade Support Battalion
Army Sustainment
March - April 2010

"The challenge in key leader engagements is to build trust first, then consensus-as the Iraqis say, friendship before business."

In addition to building trust, getting different Iraq units to

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Use of Motor Assets

Using both organic, common users, and contracted assets, Motor Transport provides:

- Theater-wide distribution and retrograde of personnel, supplies, and equipment
- Transport of break-bulk cargo and supplies
- Interconnection with all other means of transportation

Mode operators are tasked programmed shipments via movement control channels.



Mode operators are tasked programmed shipments via movement control channels to perform Motor Transport mission theater-wide.

These missions can involve different cargo configurations and require interoperability with other transport modes.

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Key Points

The following key points were discussed:

- Motor Transport in support of joint missions
- Motor Transport Sources
- Use of Motor Assets

KEY POINTS



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Quick Challenge

QUICK CHALLENGE



How are mode operators tasked to perform programmed movements?

Select the best answer and then select Submit.



- A. Movement Control channels
- B. USTRANSCOM
- C. Army Intermodal Deployment
- D. DoD

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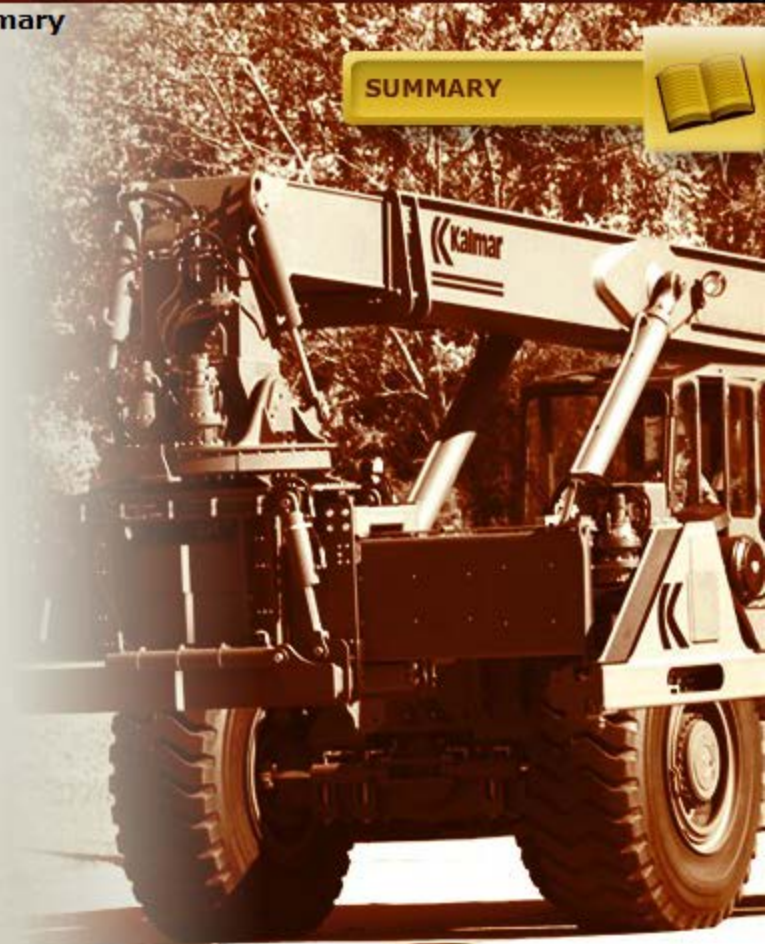
Summary

In this lesson, you have learned about the fundamentals of Motor Transport including:

- Motor Transport at different levels of war
- Missions performed for various forces

In this lesson, you have learned about Motor Transport involvement in the three levels of war, and missions performed for various forces.

SUMMARY



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Motivator

In this lesson, you will learn about terms and concepts needed for the effective planning of Motor Transport.

Your mastery of motor transport concepts and enablers will make you a valuable Transportation Corps officer in the planning of Motor Transport Operations.

MOTIVATOR



In this lesson, you will learn about the terms and concepts needed for effective Motor Transport planning.



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Lead-in

As a Senior Transportation Officer, you will be expected to have a clear understanding of the primary means of Army transport, Motor Transport, and its operations.

To do this, you will need to know the terms, methodologies, and concepts that are the foundation for successful Motor Transport planning and operations.

A Senior Transportation Officer is expected to have a command of Motor Transport Operations and planning.

This lesson will give you underlying concepts used in successful Motor Transport operations.

LEAD-IN



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Motor Transport Products

There are many products that are prepared in support of a Motor Transport Plan.

Units must:

- Prepare march tables
- Submit movement convoy clearance
- Submit special hauling requests
- Coordinate en route support

Underlying these activities are a number of considerations addressed by the Senior Transportation Officer to ensure the greatest efficiencies are realized.

Planning for Motor Transport requires activities in areas relative to working documents and coordination including: march tables, clearance, requests, and coordination of en route support.



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Operational Planning Considerations

As a Senior Transportation Officer, you must consider a number of factors in deciding the best approach in fulfilling a Motor Transport Mission.

These factors take into account:

- Mission
- Equipment
- Facilities
- Security
- Support



When planning Motor Transport, you must consider factors that influence the mission from the point of origin to the final destination to include:

The mission requirements, equipment available, facilities that will on and offload the cargo, security of the cargo and personnel, and the support needed in the conduct of the transport.



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Mission

Factors to consider include those pertaining to the mission:

- Programmed movement requirements
- Amounts and types of cargo to be transported
- Locations of supported activities
- Mission, enemy, terrain and weather, troops and support available, time available, and civil considerations (METT-TC).

One of the most important set of factors to consider is the set that defines the mission.

Journal Narration:

During a unit deployment to Afghanistan, equipment dimension input issues caused equipment to be delayed.

Read about the factors that led to this problem in the Journal text from an article that appeared in the Division Transportation Officer and Mobility Officer Quarterly Newsletter in January-March 2010.

Division Transportation Officer and Mobility Officer
Quarterly Newsletter
January - March 2010
Size Does Matter

A recent unit deployment to Afghanistan had equipment dimensional input issues, which caused the equipment to be delayed:

- *Equipment was booked with incorrect dimensions.*



- *When equipment arrived, it had to off-load from flatracks (combined actual dimensions exceeded height restrictions to travel on the [Ground Lines of Communication] GLOC).*
- *Equipment had been Customs pre-cleared as flatracks. New Customs documentation had to be submitted to the Pakistan Government.*
- *Local holiday contributed to the slow response to resolve the issue.*

Even though this delay had no operational impact... it did cause considerable man-hours to correct.

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Assets

Available assets and facilities must also be considered in your planning, including:

- Number and types of motor transport assets available
- Availability of material handling equipment (MHE) and personnel to load and unload cargo
- Capabilities and availability of equipment and units to perform the required tasks
- Available areas for truck units, Convoy Support Centers, and trailer transfer points (TTPs)

As you plan Motor Transportation, the number, type, and location of assets and facilities will be key in your decision making process.



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Support/Security

Other factors to consider when planning Motor Transport are those relative to security and needed support including:

- Security and capacity of the routes used.
- Safe march rates over each segment of the main supply routes (MSRs) and alternate supply routes (ASRs).
- Internal force protection requirements for convoys.
- Support requirements, such as fuel, military police (MP) escorts, security, engineer, medical, maintenance, and communications.
- Driver documentation, such as travel orders, driver's licenses, motor vehicle documents, cargo movement documents, and dispatches.
- Requirement for an assistant driver.



Planning a movement of materiel or personnel requires considerable support, from both the standpoint of security and resources.

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Key Points

The following key points were discussed:

- Motor Transport products
- Motor Transport planning considerations to include:
 - Mission
 - Equipment
 - Facilities
 - Security
 - Support

The following key points were discussed: some of the products produced during Motor Transport planning, and planning considerations, including those pertaining to the mission, equipment, facilities, security, and support.

KEY POINTS



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Quick Challenge

QUICK CHALLENGE



A large convoy of tanks needs to be delivered as quickly as possible over marginal roads. What consideration may impact the routing of this convoy?

Select the best answer and then select Submit.



A. Security and capacity of the routes used

B. Support requirements

C. Driver documentation

D. Available areas for truck units

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Types of Hauls

Two different types of hauls can take place across intrazonal and interzonal areas.

The two types of hauls are:

- **Local hauls (short)**
- **Line hauls (long)**

Intrazonal and interzonal transport can be served by both local hauls and line hauls.

Local Hauls

Local (short) hauls are defined as those that have these characteristics and cover a distance of approximately 20 miles/34 kilometers:

- The vehicle can make two or more round trips per 10 hour shift
- Is usually an intrazonal movement
- Utilizes these vehicles:
 - 5-ton cargo trucks
 - Heavy Expanded Mobility Tactical Truck - Load Handling System (HEMTT-LHS)

Line Hauls

Line (long) hauls are defined as those that have these characteristics and cover a distance of approximately 90 miles/150 kilometers:

- The vehicle cannot make two round trips per 10 hour shift
- They usually involve one trip or a portion of a trip per operating shift
- Incorporate TTPs
- Are frequently interzonal
- Typically are throughput operations from ports or theater storage areas to the corps and division
- Utilizes these vehicles:
 - Tractors and trailers



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Methods of Motor Transport

Movement considerations encompass both on and off loading capabilities at the origin or destination.

The method selected may very well be determined by the destination's ability to offload the cargo or their proximity to a railhead.

There are four methods used by Motor Transport to move cargo and personnel.

These methods are:

- Direct Haul
- Shuttle
- Relay
- Intermodal

The capabilities and facilities at or near the point of origin or destination may very well determine the Motor Transport method you choose: Direct Haul, Shuttle, Relay, or Intermodal.



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Direct Haul

Direct haul is the simplest method of Motor Transport.

A direct haul has these characteristics:

- Is a single transport mission completed by the same vehicle(s)
- Does not involve a transfer of supplies or exchange of equipment
- Can be used for line haul operations that are referred to as **express operations**
- **Convoy Support Centers (CSC)** are established to support direct line haul operations

Direct Haul is the simplest movement method and is sometimes used for express services for longer line hauls.

Express Operations

Express operations are established before trailer transfer or cargo transfer points have been set up.

Convoy Support Centers(CSC)

CSCs may also be used when there is a need for rapid movement of tonnage over long distances.

For more information on CSCs, see FM 4-01.40, Coordinating Draft Army Motor Transport Units and Operations, Chapter 2, Appendix H.



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Shuttle

A Shuttle is a single transport mission completed in repeated trips by the same vehicle(s) between two points.

This method is commonly used in local hauls.

Used primarily for short local hauls, the Shuttle method uses a single vehicle repeatedly between two points.



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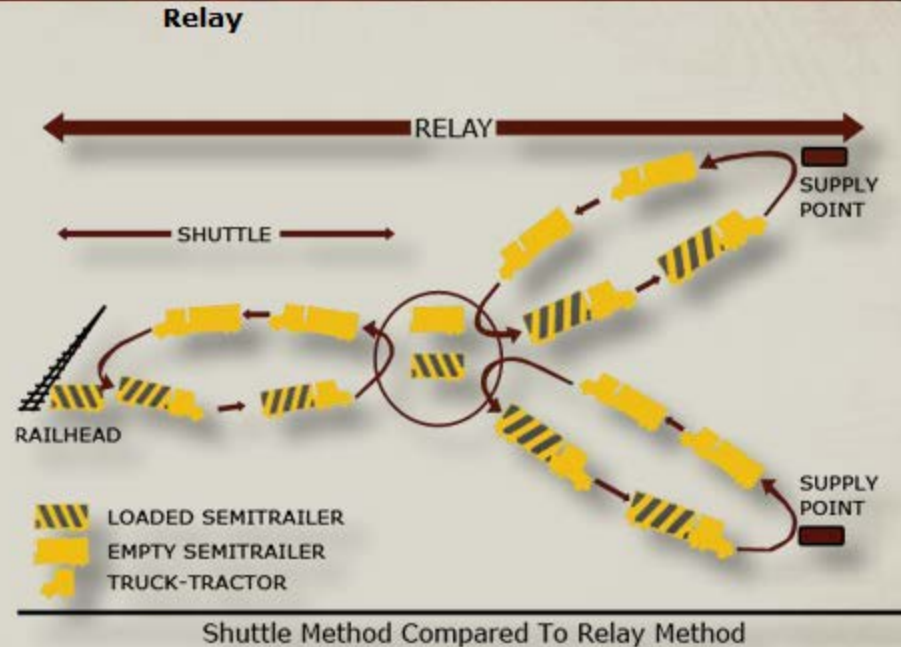
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A Relay continuously moves supplies or troops over successive segments of a route.

A Relay is a single transport mission that has these characteristics:

- Completed in one trip by multiple vehicles without transferring the load.
- The continuous cycle is accomplished by changing drivers, powered vehicles (tractors), or both for each segment.

Containerized cargo increases the effectiveness of this system and increases the tonnage capabilities of the trucks.



The Relay method is useful for sustained movements over contiguous route segments.

Requirements

The relay method requires established trailer transfer points, a mature theater, and a permissive environment.

Advantages

The relay method of movements offers these advantages:

- Allows rapid throughput of cargo.
- Usually used for line hauls because it is the most efficient method of hauling.
- Allows for command supervision and supporting services in each segment of the route.

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Intermodal Operations

Part of the theater transportation system may involve Intermodal operations.

Intermodal operations combine the capabilities of more than one mode for a movement requirement.

The method, Intermodal Operations, uses various modes of transportation integrated with motor transport to achieve maximum efficiencies.

Requirements

Cargo changes modes at intermodal terminals.

The following are ways of conducting intermodal operations:

- Trailer On Flatcar (TOFC)
- Container On Flatcar (COFC)
- Roll-On, Roll-Off (RO/RO)
- Lift-On, Lift-Off (LO/LO)
- Air
- Lighter aboard ship

Advantages

Motor transport may be combined with other transportation modes, such as air, rail, or ship to reduce cargo handling and speed delivery.



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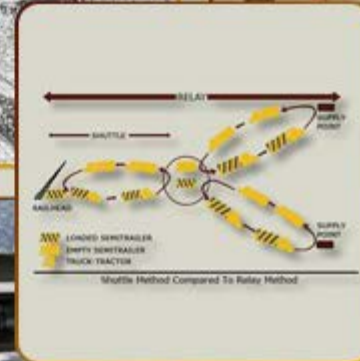
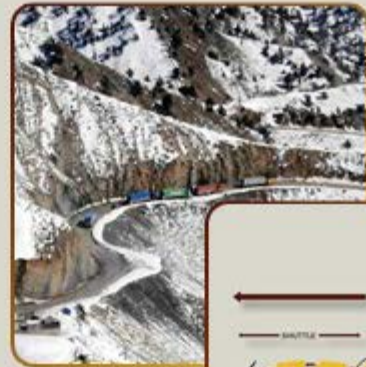
Key Points

The following key points were discussed:

- Local hauls
- Line hauls
- Motor Transport methods

The following key points were discussed: the definition of local hauls, line hauls, and the four different Motor Transport methods.

KEY POINTS



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Quick Challenge

QUICK CHALLENGE

Rapid delivery of tires needs to be made using a 5-ton truck to a forward base 100 miles away.

What method of delivery supports these requirements? Select the best answer and then select Submit.



A. Direct Haul

B. Shuttle

C. Relay

D. Intermodel

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Summary

In this lesson, you have learned about Motor Transport including:

- Planning considerations
- Definitions
- Motor Transport methods

In this lesson, you have learned about Motor Transport including planning considerations, definitions that can define missions, and Motor Transport methods.

SUMMARY



Good luck on the assessment